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The Virtuous and the Vicious: The Effects of Professionalism and Machiavellianism on Ethical IT Decision Making

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ABSTRACT

Information technology (IT) professionals have countless opportunities to engage in inappropriate, negligent, and unethical behavior in the development and use of IT. This study explores how different levels of professionalism and Machiavellianism influence the ethical decision making (EDM) involving (IT) issues. Two-hundred and forty graduate students are surveyed using two vignettes depicting ethical IT dilemmas, one of a programmer hacking into bank software and another of an employee using computer equipment for personal work. The results find mixed, but positive support for the ethical decision making model and the effects of professionalism on ethical behavior outcomes. Higher levels of professionalism increased people's ability to recognize ethical IT dilemmas, use moral equity judgments, engage in ethical behavior, but report unethical behavior less. Machiavellianism decreased the recognition of ethical IT dilemmas and decreased the use of moral equity judgments, but only when the ethical consequences are prominent.

Keywords

Ethics, ethical decision making, IT professionals, professionalism, Machiavellianism

INTRODUCTION

Highly publicized corporate scandals have significant impact on the perception of ethical and unethical behavior in business, causing a shift in the ethical attitudes of public opinion, management and academia, emphasizing the importance of ethical, legal, and socially responsible behavior overall (Conroy & Emerson, 2006). Corporate ethical issues also result from the use, and misuse, of information technology (IT) in organizations. Rashes of viruses and worms cripple personal and corporate workstations, not only questioning the morality of hackers and virus manufacturers, but also software developers, who bear a social and contractual obligation to customers to produce secure and stable software (De George, 2003; Oz, 1994). The pursuit of security and privacy policies and legislation as solutions to IT governance presupposes an understanding of the problem—one of ethics and morality—a problem that apparently suffers from a lack of complex understanding by many professionals and executives (Crane, 1996). The misalignment between personal ethical beliefs and behaviors with legislation and policies may reflect our poor understanding of moral values, moral reasoning and ethical situations involving information technology and computers (Conger & Loch, 1995).

Organizations often fall victim to these ethical oversights not due to systematic problem with business processes, or a cultural problem upholding amoral values, but due to the immoral behaviors of a select few individuals. Unethical IT behavior may lead to severe consequences in the workplace. Inappropriate and unethical use of IT is a prominent concern for managers that are accountable for their employee's workplace behavior, having significant impacts for organizations beyond merely a decrease in productivity. Employees with access to IT and sensitive information—IT professionals in particular—are inundated with opportunities to engage in unethical behavior (Vitell & Davis, 1990). Consequentially, concerns about unethical IT behavior have drawn the attention of IS researchers investigating the phenomenon (Haines & Leonard, 2007; Leonard, Cronan, & Kreie, 2004; Moores & Chang, 2006).

Professionalism

The IT profession represents a unique intersection between management professions and technical professions, requiring both the personal capabilities to manage knowledge workers, and the technical knowledge and expertise to solve technology problems. Professionalism has traditionally been poorly defined and measured, using job characteristics, work behavior, and professional commitment as different measures in different studies (Berman, 1999). Professionalism is thusly a multi-dimensional construct comprised of five dimensions, including (1) autonomy, (2) maintenance of collegiate standards, (3) professional ethics, (4) professional commitment, and (5) professional identification (Bartol, 1979; Berman, 1999; Kerr, Von Glinow, & Schriesheim, 1977). Broadly speaking, professionalism is the broad set of knowledge, norms, and values necessary to achieve occupational goals in a field.

Professionalism itself can be viewed as a form of socialization (S. S. Liu, Ngo, & Tsang, 2003), where individuals seeking to exhibit "professional" behavior in a field must conform to prevailing group norms, incorporating ethical rules and norms in the process. Professional socialization can be viewed as a form of occupational or organizational socialization (Auster, 1996), where an employee learns the necessary skills, norms and values necessary to conduct themselves in the current occupation and organizational environment. The socialization of professionals begins not in the workplace, but in our educational system. Colleges and universities are often taught by seasoned-professionals in IT with many years of professional experience in the field. However, these early stages of professionalization, while significant overall, do not contribute to professionalism as much as seniority and tenure in employment (S. S. Liu, et al., 2003).

Professional socialization effects individual values and norms, and therefore, moral values and ethical norms. Over time, by following, enforcing, and therefore replicating the ethical rules in a profession, individuals may compromise their internal moral values. From an ethical perspective, the strong socialization forces of professionalism are both good and bad, speaking both ethically and pragmatically, as professional associations, although unlikely, may institutionalize unethical behavior.

The recognition and identification of potentially harmful activities is significantly disrupted in individuals when computer technology is introduced (Sproull & Kiesler, 1991), suggesting a difference between an individual's assessments of an ethical dilemma when computer technologies are introduced that is not present when computer technologies are absent. Cappel and Windsor (1998) found that IT students and professionals both had difficulty identifying ethical issues and acting accordingly, and that consensus even within student and professional groups on *any* ethical IT issue was difficult to achieve. Therefore, while professional socialization may drive ethical or unethical IT behavior, individual differences between people in the same field and profession (IT) may be an insufficient bond to produce reliable, predictable ethical IT behavior.

Machiavellianism

Amoral reasoning may contribute to the formation (or lack thereof, in this case) of substantive moral attitudes and judgments that ultimately influence ethical intention and behavior. While perceiving the ethical component of a scenario or situation, individuals may show a lack of concern and empathy for the violation of moral values and ethical norms, and report markedly different responses for attitude, judgment, and intention measures.

To measure the degree of amorality, a construct based around the writing of Machiavelli is employed. The Machiavellianism construct measures the degree an individual is predisposed toward using deceptive and manipulative behaviors in achieve goals (Christie & Geis, 1970). The Machiavellianism construct is well established in social psychological literature (McHoskey, Worzel, & Szyarto, 1998; Wilson, Near, & Miller, 1996, 1998) and has been employed in the context of IT professionals (C.-C. Liu, 2003; Winter, Stylianou, & Giacalone, 2004). An overarching pattern of those who exhibit high Machiavellianism (Mach) scores is the general disregard for the negative consequences befalling others due to their unethical actions (i.e. a lack of empathy), and, more importantly, towards moral conventions of groups, organizations, or even cultures. The Mach IV scale captures three dispositional traits of individual behaviors (Burks, Carpenter, & Verhoogen, 2003; Christie & Geis, 1970; Fehr, Samson, & Paulhus, 1992). The three dispositional traits are as follows:

1. The extent to which a subject has cynical view of human nature, believing that others are not trustworthy
2. The willingness of a subject to engage in manipulative behaviors
3. The extent of the subjects' concern (or lack thereof) with conventional morality

Ethical Decision Making Models

The Ethical Decision Making (EDM) model is a four-component, or four-stage cognitive process (Rest, 1986; Rest, Cooper, Coder, Masanz, & Anderson, 1974). The first stage involves awareness that a situation is indeed an ethical problem. During the second stage, moral actors use decision-making heuristics to form judgments of the relative morality of possible behaviors. The third (intention) and fourth (behavior) stages resemble a standard intention-behavior model (Ajzen, 1991)Based upon the judgments formed of the ethical dilemma and potential moral behaviors, individuals form intentions to behave ethically or unethically and are likely fulfill that behavior.

Banerjee and others (1998) investigate the effects of some of these situational factors of ethical IT dilemmas The study predicts that, depending on the ethical dilemma, individuals will form markedly different moral attitudes and judgments, thus leading to ethical or unethical behavior intentions. Organizational climate and the interaction of organization environment and scenario were also investigated. Interestingly, many of the situational and environmental factors were directly more significant than the ethical decision-making model itself.

RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

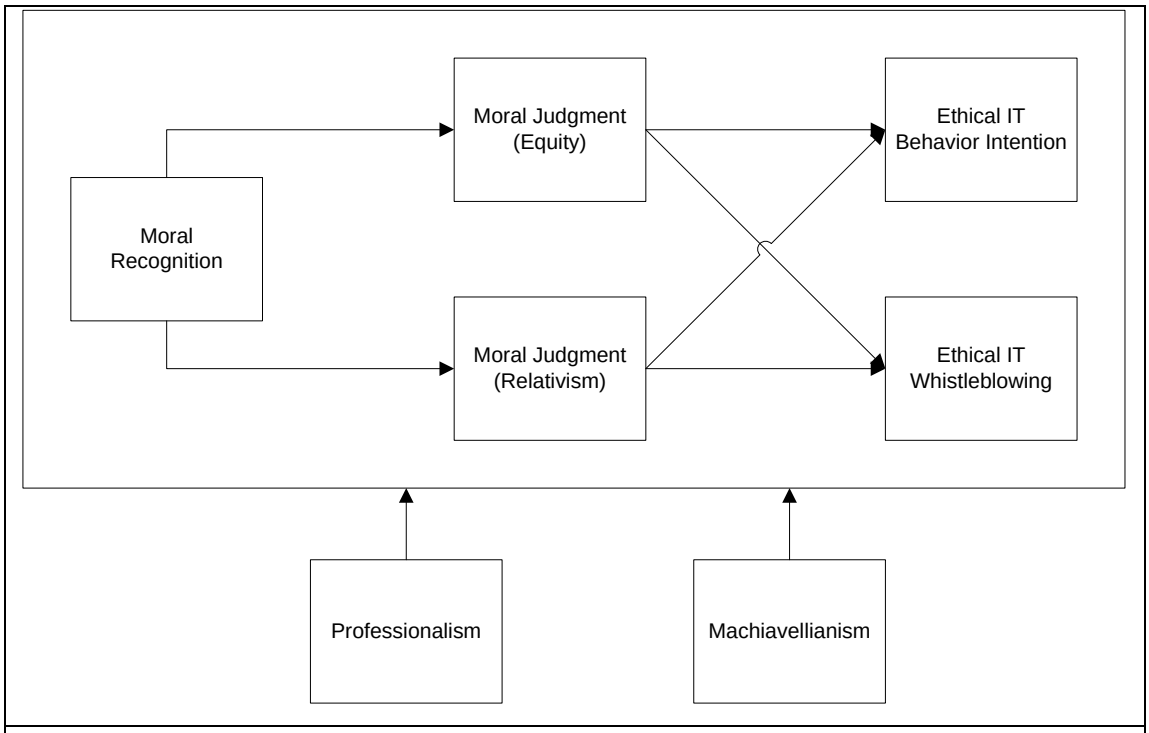

Figure 1: Conceptual research model

Ethical IT Decision Making Model

Moral Recognition and Moral Judgments

The more salient the moral components of a situation are to the individual, the more likely the individual will employ more principled forms of moral reasoning Therefore, moral recognition will be strongly associated with moral equity judgments. Conversely, a lack of a salient moral component will reduce the use of moral equity judgments in favor of more situation-specific, relativistic forms of moral reasoning, in other words, moral relativism judgments. Therefore, the following results are hypothesized:

Hypothesis 1a: Moral recognition will increase the use of moral equity judgments.

Hypothesis 1b: Moral recognition will decrease the use of moral relativism judgments.

Moral Judgments and Ethical IT Behaviors

The type of moral reasoning, whether moral equity or moral relativism judgments, will influence the ethical or unethical IT behavior of the individual, as well as the likely of that individual to report the unethical IT behavior of others. The use of moral equity judgments should increase both ethical IT behavior and the likelihood to report unethical IT behavior (or whistleblowing intention). Therefore, the following results are hypothesized:

Hypothesis 2a: The use of moral equity judgments will increase ethical IT behavior intention.

Hypothesis 2b: The use of moral equity judgments will increase ethical IT whistleblowing intention.

On the other hand, individuals employing relativistic moral reasoning will be more likely to reason that an ethical behavior is acceptable to others or a group, or does not violate some social or ethical norm, and therefore, will more likely exhibit a wider range or ethical and unethical IT behavior intentions. Not only will individuals who use moral relativism judgments report lower intention to behavior ethically, but they will also be less likely to report the observance of unethical IT behavior. Therefore, the following results are hypothesized:

Hypothesis 3a: Individuals who employ moral relativism judgments will decrease ethical IT behavior intention.

Hypothesis 3b: Individuals who employ moral relativism judgments will decrease ethical IT whistleblowing intention.

Professionalism and Machiavellianism

Effects on Moral Recognition

Professionals are socialized into a different set of ethical norms and standards than non-professionals, and the degree to which they exhibit professional behavior may influence their ability to recognize the salient moral components of a situation. Therefore, people who have higher professionalism scores will also have higher moral recognition. Individuals with high Machiavellianism scores, on the other hand, are more likely to engage in amoral behavior and by extension consider the unethical behavior of others acceptable. Therefore, the following results are hypothesized:

Hypothesis 4a: Professionalism will increase the moral recognition of individuals.

Hypothesis 4b: Machiavellianism will decrease the moral recognition of individuals.

Effects on Moral Judgments

The behavior of professionals will be directed by more principled forms of moral judgments and therefore their behaviors will be more consistent with moral judgments involving principle and equity. On the other hand, individuals with high Machiavellianism scores will take advantage of others or the situation for personal gain, demonstrating more relativistic moral reasoning. Therefore, the following results are hypothesized:

Hypothesis 5a: Professionalism will increase the use of moral equity judgments, but decrease the use of moral relativism judgments.

Hypothesis 5b: Machiavellianism will decrease the use of moral equity judgments, but increase the use of moral relativism judgments.

Effects on Ethical Behavior and Whistleblowing Intention

Professionals are socialized into a set of ethical norms and standards that are unique and extend beyond situation-specific considerations. As such, individuals who have higher professionalism scores are less likely to engage in unethical behavior. Professionals are also likely to be less tolerant of the unethical behaviors of others, and therefore more likely to report unethical behavior when observed. Individuals who exhibit high Machiavellianism scores, on the other hand, will engage in unethical behavior in the pursuit of personal gain, and will not report unethical behavior unless there is something to be gained from blowing the whistle on another employee. Therefore, the following results are hypothesized:

Hypothesis 6a: Professionalism will increase the ethical IT behavior intention and whilsteblowing intention.

Hypothesis 6b: Machiavellianism will decrease the ethical IT behavior intention and whilsteblowing intention.

METHODOLOGY

Sample

A total of 240 graduate students enrolled in information system courses were surveyed. The graduate students reported their employment status (whether full-time employee, part-time employee, or full-time student), and their current field of employment. The graduate students enrolled in the program as full-time students (n = 60, 25%) are considered a base-line group. The graduate students who responded with full-time employment were coded again as to whether the employment was IT-related (n = 63, 26.2%) or not (n = 117, 48.8%). Each of the 240 graduate students were given a survey containing questions relating to professional and Machiavellian behavior and two vignettes outlining different ethical IT dilemmas.

Vignettes

Two vignettes were developed for this study. Each vignette represents extremes of ethical consequences, which are expected to elicit significantly different responses from participants. The more intense vignette involves a programmer hacking into banking software for minor but nevertheless personal gain. The less intensive vignette involves another programmer using company resources to work on a personal project.

Measures

A factor analysis of the 20-item professionalism scale reveals that four items were loaded unreliability against not only the sub-construct but also the overarching professionalism construct; and therefore, these items were dropped. Similar to Liu and others (2003), the factors loaded similarly against the sub-constructs and the overall professionalism construct; therefore, a composite score was created using the remaining 16 items.

To measure the degree of Machiavellianism the Short Form Mach IV Test was issued, which is comprised of 10 items clustered into four factors: (1) high mach tactics, (2) low mach tactics, (3) high mach perspective, and (4) low mach perspective. *Tactics* refer to the admission of Machiavellian behaviors and strategies, such as deceit and coercion. *Perspective* refers to perceptions about people and the world, such as people act morally more often than not. The Short Form Mach IV Test is based on an extensive factor analysis of 810 university students, reducing the number of items from the original 20 in the Mach IV test (Christie & Geis, 1970) to 10. The Short Form Mach IV, similar to the complete Mach IV, uses a composite score calculated from the sum of the item means plus a base constant.

Due to the specificity of the IT context and different in more intensity of the vignettes, the Multi-Dimensional Ethics Scale (MES) was used to assess the type of moral reasoning employed in this context (Reidenbach & Robin, 1988, 1990). Unlike many other measures of moral reasoning (e.g. DIT and DIT2) that are dispositional and trait-based; MES is a situational, state-based measure. A scale of 6-items was used to measure the application of two different dimensions of moral reasoning, *moral equity* (3 items) and *moral relativism* (3 items).

RESULTS AND DISCUSSION

The results of the study were analyzed use SmartPLS 2.0 M3. Confirmatory factor analyses were conducted on the professionalism and Machiavellianism constructs. According to Table 1, the professionalism construct revealed sufficient composite reliabilities (CR) that exceed 0.70 (Werts, Linn, & Joreskog, 1974). The average variance explained (AVE), both for the construct and sub-constructs, is sufficient to confer construct and discriminant reliability (Chin, 1998). However, while Machiavellianism exhibited good CR overall, the AVE for the construct is low (0.3035).

To assess the effects of the different vignettes on the ethical decision making scenarios, two different models are constructed—one for each vignette. The CR and AVE for each of the EDM constructs (recognition, moral judgments, behavior intention, and whistleblowing intention) in both models were well within acceptable levels.

Construct	**Composite Reliability**		**AVE**	**T-Statistic**
Machiavellianism	0.7932		0.3035	
High Mach Tactics	0.8158		0.6000	11.1999
Low Mach Tactics	0.8304		0.6228	2.9439
High Mach Perspective	0.8834		0.7911	6.9772
Low Mach Perspective	0.7017		0.5796	4.7661
Professionalism	0.9639		0.6423	
Acquiring Knowledge	0.9208		0.7953	20.2331
Acting Independently	0.9176		0.8478	19.3754
Accepting Status	0.8868		0.7234	32.7664
Providing Help	0.9463		0.8150	60.3848
Exhibiting Commitment	0.8868		0.8276	48.3071
	Composite Reliability		**AVE**	
	High Intensity	**Low Intensity**	**High Intensity**	**Low Intensity**
Recognition	0.9389	0.9728	0.7939	0.8996
Moral Equity	0.9661	0.9539	0.9049	0.8733
Moral Relativism	0.9093	0.9196	0.7710	0.7929
IT Behavior Intention	0.9322	0.9287	0.9294	0.8667
Whistleblowing Intention	0.9321	0.9696	0.8730	0.9411

Table 1: Composite reliability and average variance explained of factors and constructs

Hypothesis 1a predicted that higher moral recognition will increase the use of moral equity judgments. While this hypothesis was significant in the high intensity (bank) scenario ($\beta = 0.4581$, $p < .0001$), the path was not significant for the low intensity scenario ($\beta = 0.2720$, $p = 0.1064$). Therefore, hypothesis 1a is partially supported only in the high intensity scenario.

Hypothesis 1b predicted that higher moral recognition will decrease the use of moral relativism judgments. While the paths were significant in the high intensity ($\beta = 0.4252$, $p < .005$) and low intensity ($\beta = 0.6806$, $p < .0001$) scenario, the paths were in the reverse direction than predicted. Therefore, hypothesis 1b is not supported.

The effect of moral recognition on moral equity judgments was not significant in the low intensity scenario ($\beta = 0.2720$, $p = 0.1064$). In addition, the effect of moral recognition on moral relativism judgments was much stronger in the low intensity scenario ($\beta = 0.6806$) than in the high intensity scenario ($\beta = 0.4252$). These findings would suggest interplay between intensity and the effects of recognition on moral equity and relativism judgments insofar as the high intensity scenario increases the effects of recognition on moral equity judgments, while low intensity scenario increases the moral relativism judgments. Individuals who perceive salient moral components will be more likely to use principled moral judgments.

Hypothesis 2a and 2b predicts the use of moral equity judgments will increase ethical behavior and whistleblowing intention. The effects of moral equity judgments on ethical behavior intention are significant for both the high ($\beta = 0.6420$, $p < .0001$) and low intensity scenarios ($\beta = 0.6338$, $p < .0001$). Therefore, hypothesis 2a is supported. However, the effects of moral equity judgments on whistleblowing intention are either weak *in the opposite direction* ($\beta = -0.2683$, $p = 0.0687$) or insignificant ($\beta = -0.0141$, $p = 0.3957$). Therefore, hypothesis 2b is unsupported.

Based on these results, individuals using moral equity judgments are more likely to behave ethically in scenarios involving IT regardless of the intensity of the ethical scenario. However, this line of moral reasoning has no effect on whistleblowing intention. Although the path is weak and non-significant, the effect is in the opposite direction in the high intensity scenario ($\beta = -0.2683$, $p = 0.0687$).

Hypothesis 3a and 3b predicts that the use of moral relativism judgments will decrease the intention to behave ethically or engage in whistleblowing behavior. The effects of moral relativism judgments on ethical behavior intention were insignificant for both scenarios ($\beta = -0.0492$, $p = 0.3231$; $\beta = -0.1101$, $p = 0.2574$). Therefore, hypothesis 3a is not supported. The effects of moral relativism judgments on whistleblowing intention are interesting. While for the high intensity scenario the path is insignificant ($\beta = 0.0824$, $p = 0.3339$), for the low intensity scenario the path is strong and significant ($\beta = 0.5738$, $p < .0001$). As such, hypothesis 3b is not supported.

The effect of moral relativism on whistleblowing intention is particularly fascinating. The strong and significant path between relativism and whistleblowing in the low intensity scenario suggests that employees are much more likely to report unethical IT behavior, in this case, another employee using company resources for personal work, than the high intensity scenario, where a programmer is hacking into the banking software.

Considering the effects of moral judgments on behavior intentions together, we find moral equity to consistently predicted ethical IT behavior intention, but moral relativism does not predict ethical IT behavior intention. While our original hypotheses are unsupported, the results may suggest that those who employ moral relativism judgments in a particular scenario exhibit a wide range of behavior intentions due to the broad acceptability of ethical and unethical behaviors.

		High Intensity			**Low Intensity**		
Path		**Coefficient**	**T-Stat**	**P-Value**	**Coefficient**	**T-Stat**	**P-Value**
Recognition	Moral Equity	0.4581	4.6459	0.0000	0.2720	1.6263	0.1064
Recognition	Moral Relativism	0.4252	3.3113	0.0018	0.6806	9.3236	0.0000
Moral Equity	IT Behavior Intention	0.6420	6.1047	0.0000	0.6338	4.5869	0.0000
Moral Equity	Whistleblowing Intention	-0.2683	1.8784	0.0687	-0.0141	0.1189	0.3957
Moral Relativism	IT Behavior Intention	-0.0492	0.6469	0.3231	-0.1101	0.9339	0.2574
Moral Relativism	Whistleblowing Intention	0.0824	0.5936	0.3339	0.5738	5.2439	0.0000

Table 2: Results for the ethical decision making model based on scenario

Hypothesis 4a predicts that individuals with higher professionalism will also have higher moral recognition. The effects of professionalism on moral recognition are strong and significant for both scenarios ($\beta = 0.4921$, $p < 0.001$; $\beta = 0.3549$, $p <$

0.005). Therefore, hypothesis 4a is supported. *Hypothesis 4b* predicts that the effects of Machiavellianism will decrease the moral recognition of salient moral components. Machiavellianism has a moderate, significant, *but positive* effect on moral recognition for the high intensity scenario ($\beta = 0.2896$, $p < 0.05$), and no significant effect for the low intensity scenario ($\beta = -0.0686$, $p < 0.3393$). Therefore, hypothesis 3b is unsupported.

Hypothesis 5a predicts that individuals with higher professionalism scores will use moral equity judgments over moral relativism judgments. The effect of professionalism on moral equity is positive and significant for both scenarios ($\beta = 0.6749$, $p < 0.001$; $\beta = 0.2417$, $p < 0.05$), and the effect on moral relativism is negative and significant for the high intensity scenario ($\beta = -0.4136$, $p < 0.001$), but insignificant for the low intensity scenario ($\beta = 0.0937$, $p = 0.2764$). Therefore, hypothesis 5a is supported. *Hypothesis 5b* predicts that individuals with high Machiavellianism scores will decrease the use of moral equity judgments, but increase the use of moral relativism judgments. These effects were found in the high intensity scenario ($\beta = -0.3392$, $p < 0.05$; $\beta = 0.3397$, $p < 0.005$), but the effects were insignificant in the low intensity scenario ($\beta = 0.1530$, $p < 0.2400$; $\beta = 0.1565$, $p < 0.1753$). Therefore, hypothesis 5b is partially supported in the high intensity scenario.

Hypothesis 6a predicts that higher levels of professionalism increases both ethical IT behavior intention and whistleblowing intention. The results are mixed, showing strong and significant effects on behavior intention in the high intensity scenario ($\beta = 0.6271$, $p < 0.001$), and moderate and significant effects on whistleblowing intention in the low intensity scenario ($\beta = 0.3637$, $p < 0.005$). Therefore, hypothesis 6a is partially supported in the high intensity scenario.

The insignificant results in the other two conditions suggests that professionals exhibit more ethical behavior in serious ethical dilemmas, but are not more likely to report them. However, professionals are more likely to report less sensitive unethical behavior, such as another employee using computer equipment for personal work.

Hypothesis 6b predicts that Machiavellianism will decrease both the intention to behave ethically and the intention to report unethical behavior. The results are generally insignificant, however, due to the significant measurement issues, some small effects may be found in the high intensity scenario, where Machiavellianism is negatively associated with ethical behavior intention ($\beta = -0.2723$, $p < 0.1$), but positively associated with whistleblowing intention ($\beta = 0.2089$, $p < 0.1$). However, hypothesis 6b cannot be supported.

		High Intensity			Low Intensity		
Path		**Coefficient**	**T-Stat**	**P-Value**	**Coefficient**	**T-Stat**	**P-Value**
Professionalism	Recognition	0.4921	5.1618	0.0000	0.3549	3.3808	0.0015
Professionalism	Moral Equity	0.6749	8.6070	0.0000	0.2417	2.1391	0.0409
Professionalism	Moral Relativism	-0.4136	3.9419	0.0002	0.0937	0.8542	0.2764
Professionalism	IT Behavior Intention	0.6271	8.2603	0.0000	0.2634	2.0924	0.0451
Professionalism	Whistleblowing Intention	-0.1764	1.5912	0.1125	0.3637	3.3108	0.0018
Machiavellianism	Recognition	0.2896	2.2835	0.0299	-0.0686	0.5665	0.3393
Machiavellianism	Moral Equity	-0.3392	2.1872	0.0369	0.1530	1.0061	0.2400
Machiavellianism	Moral Relativism	0.3397	3.1834	0.0027	0.1565	1.2812	0.1753
Machiavellianism	IT Behavior Intention	-0.2723	1.8673	0.0701	0.0109	0.0876	0.3970
Machiavellianism	Whistleblowing Intention	0.2089	1.7681	0.0838	-0.0340	0.3062	0.3802

Table 3: Effects of professionalism and Machiavellianism on the ethical decision making model

CONCLUSION

Two vignettes were created depicting different ethical IT dilemmas, one using company computer equipment for personal work and the other a programmer hacking bank software for a small monetary gain. The vignettes elicited different responses due to the low and high intensity of the moral component. Different models were created for each vignette where individuals exhibited markedly different EDM processes in each scenario. High intensity scenarios, such as the bank, favored the use of moral equity judgments, while low intensity scenarios, such as using equipment for personal work, favored the use of moral relativism judgments.

Professionalism had strong effects on the entire EDM process, suggesting that ethical norms and standards learned through professional training programs and work experience can have significant effects on how individuals behave in ethical IT dilemmas. On the other hand, Machiavellianism decreased the use of moral equity judgments in EDM, but overall had little

other effect on the EDM process due to significant issues with the instrument. The effects of Machiavellianism only appear in the high intensity scenario, which may suggest that amoral and immoral behavior only surface when a significant moral dilemma arises.

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